

EVIDENCE BASED RESEARCH THAT SHAPES DECISION MAKING

SYSTEMATIC REVIEWS – FREQUENTLY ASKED QUESTIONS

1) Why are reviews of health care products important?

Reviews enable health care decision makers to keep abreast of the vast and growing volume of published primary studies. Reviews are frequently the first, and often the only, source of evidence used by health care decision makers and are an important vehicle for pharmaceutical promotion.

2) What is a systematic review?

A systematic review is a review of a body of data that uses explicit methods to locate primary studies, and explicit criteria to assess their quality.

3) What is a meta analysis?

A meta analysis is a statistical analysis that combines the results of several independent clinical trials; this analysis is also sometimes called 'pooling' or 'quantitative synthesis'.

4) Why is a systematic review better than a traditional literature review?

The quality of reviews varies tremendously, with 'narrative' ad hoc literature reviews at one end of the scale and systematic reviews at the other. Most health care decision makers believe that systematic reviews greatly reduce the biases inherent in literature reviews and therefore the conclusions are considered more robust.

Systematic reviews are a more effective vehicle for disseminating product messages. A recent study indicates that systematic reviews are cited twice as often as narrative reviews (Montori 2003).

This change in attitude has only come about in recent years after the publication of a seminal paper in the field (Lau 1992) that described the pressing need to embrace systematic reviews: if the original studies of the effects of 'clot busting' drugs after heart attacks had been systematically reviewed the benefits of treatment would have been recognised more than a decade earlier.

5) Why are systematic reviews preferred by many over the evidence reported in the original randomised controlled trials?

A well-conducted systematic review is now considered by many of your customers to be a better source of evidence for a product than the individual randomised controlled trials on which it is based (NICE 2001). The main reasons for this are two-fold: firstly, more patients will be included in the systematic review, which increases the likelihood of observing a statistically significant effect; and secondly, conflicting results from individual trials can be viewed in the context of the bulk of the evidence which means that the results of adverse studies can be marginalised.

Countries like the UK and Canada may have been early adopters of systematic reviews, but they should no longer be considered the exception. The majority of top US managed care firms routinely use systematic reviews to inform their decisions and many other countries have followed suit.

6) Why is Heron considered the leading commercial supplier of systematic reviews by industry experts?

Systematic reviews are, by definition, systematic. Our researchers continually work on Heron's unique internal systems to improve the accuracy and speed of each systematic review they produce. Audit processes ensure that research accuracy can be achieved without compromising research timelines.

7) How long does a systematic review take to complete?

A systematic review typically takes between two and four months to complete. This is dependent upon the scope of the study question it is designed to answer.

- Montori 2003. Montori VM, Wilczynski NL et al. Systematic reviews: a cross-sectional study of location and citation counts. *BMC Medicine* 2003;1:2
- Lau 1992. Lau J, Antman EM, et al. Cumulative meta-analysis of therapeutic trials for myocardial infarction. *N Engl J Med* 1992;327:248–254.
- NICE 2001. The Guideline Development Process – Information for National Collaborating Centres and Guideline Development Groups. www.nice.org.uk 2001; N0040 5k 1p (Oaktree Press)

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Key: ■ = Included □ = Optional - = Not Included

Feature		Heron Evidence Development Ltd Systematic Review + Meta-Analysis	Other Systematic Review + Meta-Analysis	Literature Review
Study Protocol (components defined a priori)	Primary Question (PIOC)	■	■	■
	Secondary Questions (PIOC)	■	■	□
	Population	■	■	-
	Intervention(s)	■	■	■
	Control(s)	■	■	□
	List of Included Products	■	■	-
	Outcomes	■	■	□
	Study Designs	■	■	-
	Language	■	■	-
	Search Timeframe	■	■	-
	Databases	■	■	-
	MEDLINE	■	■	-
	EMBASE	■	■	-
	CINAHL	■	■	-
	PSYCHINFO	■	■	-
	CCTR (Central)	■	■	-
	Grey Literature	□	-	-
	Hand Searching	■	■	-
	Individual Journals	□	□	-
Conference Proceedings	■	■	-	
Inclusion/Exclusion Criteria	■	■	-	
Literature Searching	Electronic Search Strategy			
	Existing Review Search	■	■	■
	Language	ALL MAJOR	□	ENGLISH
	Timeframe	■	■	□
	Grey Literature (EAGLE, Grey Net)	□	□	-
	Manual Search Strategy			
	Conference Proceedings	■	□	-
	Citation 'Pearl Growing'	■	□	-
	Prospective 'Pearl Growing' (MeSH)	■	□	-
	Retrospective 'Pearl Growing' (Bibliography)	■	□	-
	Clinical Expert	□	□	-
	Hand Searching Non-Indexed Journals	□	-	-
	Inclusion/Exclusion	First Pass Abstract Filtering (single check)	-	■
First Pass Abstract Filtering (parallel check)		■	□	-
Independent Abstract Reconciliation		■	□	-
Second Pass Full-Text Citation Filtering (single check)		-	■	-
Second Pass Full-Text Citation Filtering (parallel check)		■	□	-
Citation Processing	Independent Citation Reconciliation	■	□	-
	Abstracts Managed in Database (Reference Manager)	■	□	-
	Daily Status Tracking (Ordered Citations)	■	-	-
	Automated Citation Ordering (email-based system)	■	-	-
	Missing Papers Rules	■	□	-
Critical Appraisal	Contacting Authors Rules	■	□	-
	Bespoke Appraisal Tool(s)	■	□	-
	Existing Published Appraisal Tool(s)	■	■	-
	Critical Appraisal (single check)	-	■	-
Data Synthesis	Critical Appraisal (double check)	■	□	-
	Data Extraction			
	Qualitative			
	Summary Matrix ('Data Availability' - MS Excel)	■	-	-
	Data Extraction (bespoke MS Word Extraction Tables)	■	-	-
	Data Extraction (other)	-	■	-
	Quantitative			
	Data Extraction (bespoke MS Access Relational Database)	■	-	-
	Data Extraction (other)	-	■	-
	Data Validation			
	Data Extraction Reconciliation (Tables vs. Database)	■	-	-
	Cohen Kappa Test	□	□	-
	Data Reporting			
	Meta Analysis (MetaView 4.0)	■	■	-
	Sensitivity Analysis	■	□	-
	Qualitative Reporting (outcome)	■	■	-
	Qualitative Reporting (class)	■	■	-
	Contribution of Review to Existing Knowledge	■	□	-
	Best Practice Reporting Standard (QUORUM)	■	□	-
	Heron Reporting Standard (Summary)	□	-	-
Dissemination				
Report	■	■	□	
Manuscript for Publication	□	□	-	
Presentation	■	□	■	